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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 575,377	05 22 2000	James J. Hickman	HICKMAN-100	2330

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EXAMINER

ALLEN, MARIANNE P

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 12 03 2002

192

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,377

Applicant(s)

HICKMAN, JAMES J.

Examiner

Marianne P. Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 28-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-14, 18, 19, 23-27 and 50 is/are rejected.
- 7) ☐ Claim(s) 15-17, 20-21 is/are objected to.
- 8) ☐ Claim(s) 1-50 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10 6) ☐ Other:

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DETAILED ACTION

Applicant's arguments filed 9/10/02 have been fully considered but they are not persuasive.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 50 has been newly introduced.

Oath/Declaration

The oath or declaration remains defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required.

See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The original oath lists the wrong provisional application number and filing date for the provisional application. See listing of 60/132,275 with filing date 1/6/99 instead of 60/135,275 with filing date 5/21/99.

It is noted that applicant did not respond to this portion of the prior Office action in their response.

Election/Restrictions

This application contains claims 28-49 are drawn to an invention nonelected with traverse in Paper No. 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

Claims 22, 23, 27, and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 22 and 50 do not make clear what is attracted or repelled by the recited layer.

Claim 23 remains confusing in requiring a detector circuit. It is unclear if this forms part of the device or accompanying software.

Claim 27 is confusing in reciting "deconvolution ... provides information on pathways or functional categories affected in the cell." It is not clear what the metes and bounds of functional category are nor what deconvolution analysis provides the recited information. The claim as written does not make clear what specific information must be provided to meet the limitation of the claims.

Claim Rejections - 35 USC § 102

As set forth in the prior Office action, applicant is being given benefit to the instant filing date of 5/22/00 and denied benefit to the priority date of 5/21/99 for provisional application 60/135,275. The provisional application is a compilation of two grant proposal documents and does not disclose or contemplate the generic invention as presently recited in the claims. While the provisional application may provide support for particular embodiments within the claims, the generic concept as disclosed in the instant specification and as recited in the claims is not disclosed in the provisional application. Should applicant believe otherwise, they are requested to point out basis in the provisional application for **each** limitation of **each** claim demonstrating contemplation of the **totality** of the claimed system as set forth in the instant specification.

Claims 1-8, 12-14, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Jung et al. (*Journal of Vacuum Science & Technology*, 16(3):1182-1188, 1998).

This rejection is maintained for reasons of record.

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Applicant argues that the silane SAM would not be attached to the microelectrode surface but rather the insulator. Assuming that this is true (and no evidence has been supplied demonstrating this for the prior art electrode), the claim as written does not require that the intervening layer be attached to or in contact with the microelectrode surface. This layer would still be between the cells and microelectrode even if attached to the insulator. Furthermore, no evidence has been presented that a high impedance seal was not made. Note that the disclosure on page 8, lines 11-15, is a preferred embodiment and that the recitation of "high impedance seal" in the claims is not limited to that definition. Secondly, page 17, lines 20-21, of the instant specification discloses an embodiment of the invention where the active surface of the microelectrode can comprise platinum black with an insulator thus implying that the claimed high impedance seal would be formed. Finally, the Jung et al. reference indicates that in some cases the platinization of the microelectrode was incomplete and thus the SAM could have attached to any hydroxyl groups on the exposed surface thus meeting the "at least in the vicinity of said one or more cells" limitation. It is further noted that Figure 6(a,b) of the reference appears to be identical to Figure 1(a,b) of the instant specification.

Claim Rejections - 35 USC § 103

Claims 1-14, 18-19, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borkholder et al. (U.S. Patent No. 6,377,057) in view of Jung et al.

This rejection is maintained for reasons of record. Applicant has not overcome the teachings of Jung et al. as set forth above.

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Conclusion

No claim is allowed. Claims 15-17 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 9:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

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Marianne P. Allen

Marianne P. Allen

Primary Examiner

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mpa

December 2, 2002